

REMARKS/ARGUMENTS

The rejections presented in the Office Action dated May 19, 2005 (hereinafter Office Action) have been considered. Claims 1-41 remain pending in the application. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

The Applicants note the Examiner's initials on the PTO-1449 submitted in connection with an Information Disclosure Statement (IDS) on February 4, 2004. However, it is noted that the Examiner has not initialed two of the documents, namely WO 02/099762 and the document entitled "The Multimedia Card." Pursuant to the provisions of M.P.E.P. 609, it is respectfully requested that the Examiner provide an initialed PTO-1449 form with the next official communication for those PTO-1449 entries that were presumably inadvertently not initialed. If the copies of the non-initialed documents are not in the USPTO file, the Applicants respectfully request notification, and additional copies can be provided.

Claims 1, 5-11, 13, 16, 22-27, 29-35, 37-39, and 41 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. 2004/0127255 A1 to Becker et al. (hereinafter *Becker*). The Applicants respectfully traverse the rejection for failure of *Becker* to teach what is set forth in these claims.

Becker is directed to the data transfer rate to/from attachable memory devices, and is unequivocally silent with respect to sensing functionality to which the rejected claims are directed. To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the patent claim; *i.e.* every element of the claimed invention must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Therefore, all claim elements, and their limitations, must be found in the prior art reference to maintain a rejection based on 35 U.S.C. §102. Applicants respectfully submit that *Becker* does not teach every element of the rejected claims, and therefore fails to anticipate the rejected claims.

Referring first to Claim 1, the claim is directed to a *sensor* card. *Becker* is silent with respect to sensors or sensing. Claim 1 also includes one or more *sensors* to respectively collect *sensor data*. The Office Action cites paragraph 0020 of *Becker* as teaching sensors to collect sensor data, where the cited paragraph of *Becker* recites the following:

By way of example, the multi-media storage device 16 might store audio files for use as ringer tones by the portable electronic device 10. The multi-media storage device 16 might also store pictures, video streams or MP3 audio files for playback on the portable electronic device 10 display screen, output from a speaker or other input/output (I/O) device 24 with which the portable electronic device 10 is equipped. An even more general embodiment of portable electronic device 10 includes devices identified in FIG. 5, which include devices such as a CD player, an MP3 player, a DVD player, an Internet appliance or a PDA, (all identified by reference numeral 100) which are equipped with the multi-media device interface 18 described herein.

It is respectfully submitted that the above-identified cited portion of *Becker*, and *Becker* in totality, fail to address or imply the use of sensors or the collection of sensor data. The cited portion deals only with stored data, and does not expressly or inherently describe sensors or data resulting from what a sensor(s) has sensed. It naturally follows that *Becker* does not include sensor interface circuitry coupled to the sensors because *Becker* does not teach sensors. The Examiner has argued that the “sensed” data can be in the form of audio tones, games, pictures, etc. However, the Applicants respectfully submit that the information identified by the Examiner is described in *Becker* as stored data. It is unclear to the Applicants how pictures, ring tones, etc. can be “sensed” as suggested by the Examiner, and more importantly, how *Becker* in fact teaches that such data can be sensed by sensors.

Further, with respect to the sensor interface circuitry, this claim feature recites that the sensor interface circuitry is coupled to the sensors to receive the sensor data, and to store the sensor data in the memory. However, the argument proffered in the Office Action that the memory of *Becker* equates to the sensors in the claimed invention is illogical, as it would not make sense for the system of *Becker* to have electrical contacts to receive the data from the memory, and then to store the data into the same memory. More particularly, the removable memory of *Becker* is shown as multi-media storage device 16, which

includes a CPU 20 and a memory 22. If the memory chip is to be equated with the sensors as has been done in the Office Action, then *Becker* would be removing the pictures, ring tones, etc. from the memory 22, and then using sensor interface circuitry to receive the data and store it back into the memory 22. This merely highlights that *Becker* is silent with respect to sensors, and in fact merely teaches a removable memory chip. As previously indicated, an anticipation rejection requires that the identical invention be shown in as complete detail as is contained in the patent claim; *i.e.* every element of the claimed invention must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). It is respectfully submitted that *Becker* does not teach the invention in as complete detail as contained in the patent claim, thereby providing an additional reason as to why *Becker* cannot anticipate Claim 1.

Because a claim is anticipated only if *each and every element as set forth in the claim* is expressly or inherently found in a single prior art reference, and because *Becker* clearly fails to address sensors, sensor data, sensor interface circuitry and/or the relationship therebetween, *Becker* cannot anticipate Claim 1. For at least these reasons, the Applicants respectfully submit that the rejection of Claim 1 includes errors of fact, which has led to a rejection that is grounded in an error of law. Reconsideration and withdrawal of the anticipation rejection to Claim 1 is respectfully solicited.

Independent Claims 16 and 30 stand rejected as being anticipated by *Becker* using the same rationale as the rejection of Claim 1. The Applicants respectfully traverse the rejections. Claim 16 is directed to a method for incorporating sensor functionality into mobile communication devices that *already employ at least one removable memory card*. *Becker* does not teach any sensor functionality, or the incorporation of any sensor functionality into a mobile communication device that employs at least one removable memory card. Claim 16 also recites storing sensor data from one or more sensor modules into a memory. As noted in connection with Claim 1 above, *Becker* is silent as to any sensor modules. Further, *Becker* describes data transfers to and from a removable memory, and does not teach storing sensor data from sensor modules to a memory. Independent Claim 30 is directed to a system for providing sensor functionality to mobile devices that are capable of communicating over a mobile communications network. Again, *Becker*

relates to data transfer rates to/from a removable memory, but is silent with respect to any sensor functionality. Claim 30 also includes modular sensor functionality that includes one or more sensors *for gathering sensor data*, and a memory to store the sensor data. *Becker* does not expressly or inherently teach sensors, or gathering sensor data. Therefore, *Becker* fails to teach every element of Claims 16 and 30, and therefore fails to anticipate these claims. Reconsideration and withdrawal of the rejection is respectfully requested.

Dependent Claims 5-11, 13, 22-27, 29, 31-35 and 37, which also stand rejected as being anticipated by *Becker*, are dependent from independent Claims 1, 16 and 30. More particularly, Claims 5-11 and 13 are ultimately dependent from independent Claim 1; Claims 22-27 and 29 are ultimately dependent from independent Claim 16; and Claims 31-35 and 37 are ultimately dependent from independent Claim 30. While Applicants do not acquiesce with the particular rejections to these dependent claims, including rejections based on *Becker* and/or assertions concerning common knowledge, obvious design choice and/or what may be otherwise well-known in the art, it is believed that these rejections are moot in view of the remarks made in connection with independent Claims 1, 16 and 30. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from the cited references. Therefore, dependent Claims 5-11, 13, 22-27, 29, 31-35 and 37 are also in condition for allowance.

Independent Claim 39 also stands rejected as being anticipated by *Becker*, and the Applicants respectfully traverse the rejection. Claim 39 is directed to a mobile device that has a scalable sensor system. *Becker* is not directed to any sensor system. Claim 39 includes *at least one modular card having sensor functionality implemented thereon to gather sensor data*. *Becker* is cited as teaching this at paragraph 0022, which states:

The multi-media device interface 18 reduces processing overhead associated with data transfer between the multi-media storage device 16 and the portable electronic device 10. A principal function of the multi-media device interface 18 is to enable a processor in the portable electronic device 10 that is controlling the multi-media storage device 16, to issue commands to the multi-media storage device 16, even when the multi-media storage device 16 is unable to process them. In the embodiment shown in FIG. 2, the multi-media device interface 18 enables the MCU 30 to issue a first command to the multi-media storage device 16.

It is respectfully submitted that neither the above cited passage, nor elsewhere in *Becker*, is a description or teaching of a module card(s) having sensor functionality implemented thereon to gather sensor data. For at least this reason, *Becker* cannot anticipate Claim 39. Claim 41, also rejected as being anticipated by *Becker*, is dependent from Claim 39, includes all the limitations of Claim 39, and therefore is also not anticipated by *Becker*. Reconsideration and withdrawal of the rejection to Claims 39 and 41 is respectfully solicited.

It should be noted that other differences may exist between *Becker*, and the claims rejected as being anticipated by *Becker*, that are not specifically set forth herein. However, all claim limitations must be found in a single prior art reference to maintain a rejection based on 35 U.S.C. §102, and establishing that even one such limitation is missing from the prior art is sufficient to overcome a §102 rejection. Thus, not every distinction need be addressed to overcome a charge of anticipation. Therefore, the Applicants note that an absence of remarks identifying further possible distinctions is not an admission that there is correspondence between other claim recitations and the cited prior art, and the Applicant reserves the right to argue other distinctions at an appropriate time.

The remaining pending claims stand rejected under 35 U.S.C. §103(a). To establish a *prima facie* case of obviousness based on a combination of references, three basic criteria must be met, as is set forth in M.P.E.P., §2143:

- 1) There must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- 2) There must be a reasonable expectation of success; and
- 3) The prior art references must teach or suggest all of the claim limitations.

The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *See In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Further, the prior art must suggest the desirability of the *combination* of the references. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990).

Claims 2-3, 28, 36, and 40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Becker* in view of U.S. Publication No. 2003/0126593 A1 to *Mault*. The

Applicants respectfully contest the rejection for failure of the combination of references to establish *prima facie* obviousness.

With regard to Claims 2-3, 28, 36, and 40, it is first respectfully submitted that even assuming *arguendo* that the combination of *Becker* and *Mault* is proper, such a combination fails to teach or suggest all of the claim limitations. As set forth above, the Applicants first respectfully submit that *Becker* fails to teach what the Office Action purports is taught by *Becker*, and further that *Becker* fails to teach a bridge coupled between a sensor(s) and an external memory. Additionally, referring to Claim 2 for example, sensor interface circuitry includes a bridge coupled between the sensor(s) and an external memory which also implements the digital interface to facilitate mapping of the sensor data into a defined portion of the external memory, and where the host receives sensor data via this defined portion of the external memory.

The Examiner acknowledges that *Becker* fails to teach an external memory also implementing the digital interface to facilitate mapping of sensor data into a defined portion of the external memory where the host receives sensor data via this defined portion of the external memory. The Office Action cites *Mault* as teaching these claimed recitations. The Applicants respectfully disagree. The Office Action indicates that *Mault* teaches a monitor module able to transfer data to a memory module interface of a remote control, which in turn sends information to a remote host according to the sensed data in each of the defined memory locations. The Applicants respectfully submit that *Mault* is silent at least with respect to mapping data into a defined portion of an external memory. It is respectfully submitted that upon analysis of *Mault*, no reference to “defined memory locations” or mapping of data could be found. Similarly, no such reference is found in *Becker*, and therefore a combination of *Becker* and *Mault* fails to teach or suggest at least the mapping of sensor data into a defined portion of external memory, where a host process receives sensor data via this defined portion of external memory. FIG. 13 of the Applicants’ patent application illustrates a representative example of a manner of mapping sensor data into a defined portion of an external memory. It is respectfully submitted that neither *Becker* nor *Mault* teach or suggest at least this claimed feature. For at least this reason, the combination of *Becker* and *Mault* fail to establish *prima facie* obviousness.

Claim 40 has been rejected based on the same rationale as that of Claim 2. Claim 40 also involves a bridge to facilitate mapping of sensor data into a defined portion of the memory, where the host process receives the sensor data via that defined portion of the memory. As set forth above, a combination of *Becker* and *Mault* fail to teach or suggest at least the mapping of data into a defined portion of an external memory, and thus a combination of *Becker* and *Mault* fail to render Claim 40 obvious.

Claim 28 has been rejected based on the same rationale as that of Claim 2. Claim 28 sets forth particular representative embodiments of a digital interface operable in connection with the method set forth in independent Claim 16. It is respectfully submitted that the rationale used in connection with Claims 2 and 40 does not apply to the language in Claim 28. Clarification is respectfully requested if this rejection is maintained.

As for Claim 3, it is dependent from Claim 2. While Applicants do not acquiesce with the particular rejection to Claim 3, this rejection is moot in view of the remarks made in connection with Claim 2. Claim 3 includes all of the limitations of Claim 2, and recites additional features which further distinguish these claims from the cited references. "If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious." M.P.E.P. §2143.03; citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, dependent Claim 3 is also allowable over the combination of *Becker* and *Mault*. Further, it is respectfully submitted that the cited portions of *Mault* (i.e., ¶¶ 0046, 0058 and 0061), and *Mault* in general, fail to teach what is set forth in Claim 3. Particularly, *Mault* fails to teach what the Office Action purports that it teaches, which is means for switching between the defined portion of the external memory and remaining portions of the external memory to allow respective access by the host process of the sensor and non-sensor data. The cited portion of *Mault* recites general information that does not teach the limitations of Claim 3. While *Becker* was not cited as teaching the limitations of Claim 3, *Becker* also fails to address this. For this additional reason, Claim 3 is not rendered obvious by the combination of *Becker* and *Mault*.

Regarding Claim 36, it is respectfully submitted that *Becker* fails to teach what is purported to be taught relative to independent Claim 36. Combining *Mault* with *Becker* still does not include at least the modular sensor functionality and the modular memory, nor

does it include a master process to control communication between the master process and one or both of the modular sensor functionality and module memory, where that master process is detached from the sensor functionality and later re-attached. However, it is noted that Claim 36 includes a typographical error, and has been amended to more clearly address that it is the master process at issue. It is respectfully submitted that Claim 36 is allowable over the combination of *Becker* and *Mault*.

Claims 4, 12, 14-15 and 17-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Becker* in view of U.S. Publication No. 2005/0010796 A1 to *Arnouse*. The Applicants respectfully traverse the rejection. *Arnouse* is directed to a memory card that stores information and controls access to that information. It concerns a file system of files stored on the card (*see* Abstract). The only sensing involved deals with biometric sensing (*e.g.*, retinal or fingerprint) to gain access to the information on the card. (*see, e.g.*, paragraphs 30, 40, 100, 105). It is therefore first respectfully submitted that *Arnouse* fails to remedy the deficiencies of *Becker* at least with respect to what is claimed in independent Claims 1 and 16, from which rejected Claims 4, 12, 14, 15 and 17-21 are dependent. For at least this reason, a combination of *Becker* and *Arnouse* fail to teach or suggest all the claim limitations of Claims 4, 12, 14, 15 and 17-21, and therefore *prima facie* obviousness has not been established and these claims are not rendered obvious by the cited combination of references.

Further, referring now to Claim 4, the Office Action cites a scanner, playback/sending unit, or ID card reader of *Arnouse* as teaching a housing to house the sensor card when the sensor card is not connected to the mobile communication device, where the housing includes a power source to allow the sensor data to be stored in the memory when the sensor card is housed within the housing. It is respectfully submitted that the recitations in Claim 4 have not been fully considered in the Office Action. If a scanner, playback/sending unit or ID card reader of *Arnouse* are equated with the housing of Claim 4, then the power provided by such scanner, playback/sending unit or ID card reader of *Arnouse* must allow data to be stored in the memory of *Arnouse*'s memory card when the memory card is housed within the housing. However, in *Arnouse*, the information is already stored on the memory card *before* it gets to such scanner, playback/sending unit

or ID card reader, or inserting the card into such scanner, playback/sending unit or ID card reader would be fruitless. *Arnouse* does not teach that the memory card of *Arnouse* is placed into the scanner, playback/sending unit or ID card reader in order to store information on the card. Thus, a combination of *Becker* and *Arnouse* fail to teach all the claim limitations of Claim 4, and *prima facie* obviousness is not established.

It is further respectfully submitted that there is no motivation to combine the teachings of *Becker* and *Arnouse*. For example, for Claim 12, the digital interface of Claim 1 includes a number of interfaces, including a USB interface. The proffered motivation to combine *Becker* and *Arnouse* is stated in the Office Action as “to provide a means to transfer information via a USB.” However, there must be some actual *motivation* to combine the references, found in the references themselves, the knowledge of one of ordinary skill in the art or from the nature of the problem to be solved that would suggest *the combination*. Without a suggestion of the desirability of “the combination,” a combination of such references is made in hindsight, and the “range of sources available, however, does not diminish the requirement for actual evidence.” *In re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999). It is a requirement that actual evidence of a suggestion, teaching or motivation to combine prior art references be shown, and that this evidence be “clear and particular.” *Id.* Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.* It is respectfully submitted that the proffered motivation “to provide a means to transfer information via a USB” does not rise to the level of clear and particular evidence, and is made possible only with the benefit of hindsight using the Applicants’ Specification as a blueprint for piecing together the prior art.

Similarly, the proffered motivation for Claims 17-21 is to provide a means to store information into designated areas or files on the memory card for easy retrieval of information. First, it is respectfully submitted that “to store information into designated areas” is not a motivation, but rather what is a portion of what is set forth in Claims 17-21. As to the proffered motivation of “easy retrieval of information,” the Applicants respectfully submit that this is in essence taking Official Notice that it would be easy to retrieve information if information is stored in a particular area of memory relative to other areas of memory. The

Applicants do not acquiesce that this would necessarily facilitate easier retrieval of information, and respectfully request that such statement of motivation be verified.

For at least the foregoing reasons, it is respectfully submitted that the pending claims are not anticipated, nor rendered obvious, by the cited art of record.

Authorization is given to charge Deposit Account No. 50-3581 (NOKM.033PA) any necessary fees for this filing. If the Examiner would find it helpful, the undersigned attorney of record invites the Examiner to contact him at 952.854.2700 (x11) to discuss any issues related to this case.

Respectfully submitted,

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